Charles V. Baker
Draper, Inc.
411 South Pearl Street
Spiceland, IN 47385

Re: 065-14901-00029
First Minor Permit Revision to
FESOP No.: F065-7956-00029

Dear Mr. Baker:

Draper, Inc. was issued a FESOP permit on September 25, 1997 for operation of a stationary window shade and projection screen light assembly and surface coating operation. A letter requesting changes to this permit was received on September 10, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the construction and operation of one (1) powder coating operation, two (2) welding stations and one (1) cure oven.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Prior to start of operation, the following requirements should be met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Adeel Yousuf, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call 973-575-2555 (ext. 3252) or 1-800-451-6027 press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
AY/EVP
cc: File - Henry County
U.S. EPA, Region V
Henry County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) and ENHANCED NEW SOURCE REVIEW OFFICE OF AIR QUALITY

Draper, Inc.
411 South Pearl Street
Spiceland, Indiana 47385

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F065-7956-00029	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 25, 1997 Expiration Date: September 25, 2002

First Significant Permit Revision FSPR 065-11865-00029, issued on May 15, 2000.

First Minor Permit Revision: FMPR 065-14901-00029	Pages Affected/Added : 3a, 4a / 26d
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

(3) Two (2) natural gas fired air rotation units, identified as 91 and 92, each rated at 3.125 million (MM) British thermal units (Btu) per hour.

(4) One (1) natural gas fired cure oven, identified as EU13, rated at 4.0 MMBtu/hr, and exhausting through stack S7.

(5) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

(6) Activities or categories not previously identified with emissions less than or equal to insignificant thresholds:

one (1) powder coating operation, identified as Powder coat system, coating a maximum of 0.94 units per hour, utilizing electrostatic application method and a pulse max collectors for particulate matter control, and exhausting within the building.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.3 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Insignificant Activity

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment: two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

(b) Activities or categories not previously identified with emissions less than or equal to insignificant thresholds:
one (1) powder coating operation, identified as Powder coat system, coating a maximum of 0.94 units per hour, utilizing electrostatic application method and a pulse max collectors for particulate matter control, and exhausting within the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

__ (a) Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the powder coating operation identified as powder coat system shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. This includes the following operation:

two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Draper, Inc.
Source Location:	411 South Pearl Street, Spiceland, IN 47385
County:	Henry
SIC Code:	2591, 3861
Operation Permit No.:	F065-7956-00029
Operation Permit Issuance Date:	September 25, 1997
Permit Revision No.:	065-14901-00029
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed a minor permit revision application from Draper, Inc. relating to the operation of a stationary window shade and projection screen light assembly and surface coating operation. These activities are considered insignificant.

History

On September 12, 2001, Draper, Inc. submitted an application to the OAQ requesting minor revisions to their existing FESOP which was issued on September 25, 1997. The revisions include the addition of one (1) powder coating operation, two (2) welding stations and one (1) cure oven.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) One (1) natural gas fired cure oven, identified as EU13, rated at 4.0 million (MM) British thermal units (Btu) per hour, and exhausting through stack S7.

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

(c) Activities or categories not previously identified with emissions less than or equal to insignificant thresholds:

one (1) powder coating operation, identified as Powder coat system, coating a maximum of 0.94 units per hour, utilizing electrostatic application method and a pulse max collectors for particulate matter control, and exhausting within the building.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) FESOP F065-7956-00029, issued on September 25, 1997.

(b) First Significant Permit Revision: FSPR065-11865-00029, issued on May 15, 2000.

All conditions from previous approvals were incorporated into this FESOP.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S7	EU13	19	0.83	2000	300

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 10, 2001. Additional information was received on December 3, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 4).

Potential To Emit of the Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	0.22
PM-10	0.32
SO_2	0.01
VOC	0.10
CO	1.47

NO_x	1.75

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Manganese	negl.
TOTAL	negl.

Justification for Modification

The Federally Enforceable State Operating Permit is being modified through a Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(d), because although the potential to emit PM, PM-10, SO_2, NO_x, and VOC is less than the range of less than 5 and greater than 25 tons per year, and the potential to emit CO is less than the range of less than 25 and greater than 100 tons per year, the revision does not fit into any category for an administrative ammendment.

Limited Potential to Emit of Modification after Issuance

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Insignificant Activities (Powder coat system, EU13, (2) welding stations)	0.22	0.32	0.01	0.10	1.47	1.75	negl.
Total Emissions	0.22	0.32	0.01	0.10	1.47	1.75	negl.

Limited Potential to Emit of Entire Source

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	Single HAP	HAPs
Existing permitted facilities in F 065-7956 and FSPR 065-11865)	2.27	2.37	0.02	40.24	2.30	2.74	9.40	16.43
Insignificant Activities (Powder coat system, EU13, (2) welding stations)	0.22	0.32	0.01	0.10	1.47	1.75	negl.	negl.
Total Emissions	2.49	2.69	0.03	40.34	3.77	4.49	9.40	16.43

County Attainment Status

The source is located in Henry County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Henry County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is still not subject to 326 IAC 2-6 (Emission Reporting), which would require the source to submit an annual emission statement. This source has accepted federally enforceable conditions which limit emissions of volatile organic compounds to below 100 tons per year. Therefore the requirements of 326 IAC 2-6 do not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-4.1-1 (New Source Toxics Control)

326 IAC 2-4.1-1 applies to new or reconstructed facilities with potential emissions of any single HAP equal or greater than ten (10) tons per twelve (12) month period and potential emissions of a

combination of HAPs greater than or equal to twenty-five (25) tons per twelve (12) month period. This modification is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because it has potential single HAP and total HAPs emission of less than 10 and 25 tons per year, respectively.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

(a) Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from the welding operation not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) The particulate matter (PM) from the powder coating system, identified as powder coat system shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

Rule 8-1-6 applies to new facilities (as of January 1, 1980) which have potential emissions of 25 tons or more per year of volatile organic compounds (VOC). The potential VOC emissions from the insignificant activities in this permit are below the twenty-five (25) tons per year applicability threshold and are therefore, not subject to the requirements of 326 IAC 8-1-6.

Compliance Requirements

Permits issued under 326 IAC 2-8are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The are no compliance monitoring requirements applicable to the insignificant activities.

Changes Proposed

Bolded language has been added, the language with a line through it has been deleted:

Section A.3 has been updated to include the new insignificant activities.

A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

(1) two (2) natural gas fired make-up air units, identified as EU1 and EU3, each rated at 1.0 and 0.8 million (MM) British thermal units (Btu) per hour, respectively;

(2) forty one (41) natural gas fired space heaters, with a combined heat input capacity of 0.2 MMBtu per hour;

(3) Two (2) natural gas fired air rotation units, identified as 91 and 92, each rated at 3.125 million (MM) British thermal units (Btu) per hour.

(4) One (1) natural gas fired cure oven, identified as EU13, rated at 4.0 MMBtu/hr, and exhausting through stack S7.

(5) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

(6) Activities or categories not previously identified with emissions less than or equal to insignificant thresholds:

one (1) powder coating operation, identified as Powder coat system, coating a maximum of 0.94 units per hour, utilizing electrostatic application method and a pulse max collectors for particulate matter control, and exhausting within the building.

Section D.3 has been added to the permit to include the new insignificant activities.

SECTION D.3 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Insignificant Activity

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:
two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

(b) Activities or categories not previously identified with emissions less than or equal to insignificant thresholds:
one (1) powder coating operation, identified as Powder coat system, coating a maximum of 0.94 units per hour, utilizing electrostatic application method and a pulse max collectors for particulate matter control, and exhausting within the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the powder coating operation identified as powder coat system shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10\ P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.3.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. This includes the following operation:

two (2) metal inert gas welding stations, with maximum wire consumption of 3.92 pounds per hour per station.

Conclusion

The operation of this stationary window shade and projection screen light assembly and surface coating operation shall be subject to the conditions of the attached proposed **Minor Permit Revision for a Federally Enforceable State Operating Permit No.: F065-14901-00029**.

Appendix A: Emission Calculations

Company Name: Draper, Inc.
Address City IN Zip: 411 South Pearl Street, Spiceland, IN 47385
OP No.: 065-14901-00029
Reviewer: AY/EVP

Uncontrolled Potential Emissions (tons/year)

Pollutant	Emissions Generating Activity: Powder Coating Operation	Welding	Natural Gas Combustion	**TOTAL**
PM	0.10	0.19	0.03	0.32
PM10	0.10	0.19	0.13	0.42
SO2	0.00	0.00	0.01	0.01
NOx	0.00	0.00	1.75	1.75
VOC	0.00	0.00	0.10	0.10
CO	0.00	0.00	1.47	1.47
total HAPs	0.00	negl.	negl.	negl.
worst case single HAP	0.00	negl.	negl.	negl.

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

Pollutant	Emissions Generating Activity: Powder Coating Operation	Welding	Natural Gas Combustion	**TOTAL**
PM	0.00	0.19	0.03	0.22
PM10	0.00	0.19	0.13	0.32
SO2	0.00	0.00	0.01	0.01
NOx	0.00	0.00	1.75	1.75
VOC	0.00	0.00	0.10	0.10
CO	0.00	0.00	1.47	1.47
total HAPs	0.00	negl.	negl.	negl.
worst case single HAP	0.00	negl.	negl.	negl.

Total emissions based on rated capacity at 8,760 hours/year, after control.

Appendix A: Emissions Calculations
VOC and Particulate
From Powder Coating Operations

Company Name: Draper, Inc.
Address City IN Zip: 411 South Pearl Street, Spiceland, IN 47385
OP No.: 065-14901-00029
Reviewer: AY/EVP

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Pounds of Mat. (lb/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Booth I.D.																
Powder Coat System	n/a	0.00%	0.0%	0.0%	0.0%	100.00%	0.10000	0.940	0.00	0.00	0.00	0.00	0.00	0.103	0.00	75%
State Potential Emissions			**Add worst case coating to all solvents**								**0.00**	**0.00**	**0.00**	**0.10**		

Controlled Potential Emissions

	Control Efficiency PM	Controlled PM tons/yr
Total Controlled Potential Emissions:	99.95%	**0.00005**

Note: Control equipment is considered an integral part of the process.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (lb/unit) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Draper, Inc.
Address City IN Zip: 411 South Pearl Street, Spiceland, IN 47385
OP No.: 065-14901-00029
Reviewer: AY/EVP

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
4	35.0

Facilities	**MMBtu/hr**
Curing Oven (EU13)	5.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.03	0.13	0.01	1.75	0.10	1.47

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Welding and Thermal Cutting

Company Name: Draper, Inc.
Address City IN Zip: 411 South Pearl Street, Spiceland, IN 47385
OP No.: 065-14901-00029
Reviewer: AY/EVP

PROCESS	Number of Stations	Max. electrode consumption per station		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
WELDING Stack 7		(lbs/hr)		PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(E70S-6)	2	3.92		0.0055	0.0005	--	--	0.043	0.00392	0.000	0.000	0.004
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.04	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								1.03	0.09	0.00	0.00	0.09
Potential Emissions tons/year								**0.19**	0.02	0.00	0.00	0.02

METHODOLGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.